

RCFA PERMIT
ADMINISTRATIVE RECORD
ITEM NUMBER
TOTAL NUMBER OF PAGES

1/5/1993

DATE: 1593

1630

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PROPOSED VARIANCE FROM USEPA-APPROVED RFI WORK PLAN BURLINGTON ENVIRONMENTAL INC. PIER 91 FACILITY SEATTLE, WASHINGTON

The Burlington Environmental Inc. (Burlington) Pier 91 RCRA Facility Investigation (RFI) Work Plan (Burlington, 1992) proposed that monitoring well CP-120 be installed in the area east of the oil/water separator as shown in Figure C-1 of the RFI Work Plan. The RFI Work Plan also proposed that well CP-120 be installed as a shallow monitoring well with a DNAPL (dense nonaqueous-phase liquid) collection sump, as illustrated schematically in Figure C-3 of the RFI Work Plan. Due to the presence of both aboveground and underground piping, the proposed location is inaccessible to drilling equipment.

The rationale for selection of this location was given as the following (paraphrased from Burlington, 1992):

- near the oil/water separator and test borehole TB-2;
- will provide continued monitoring of a location exhibiting high analyte concentrations in a previous investigation; and
- will help define presence/extent of dense nonaqueous-phase liquid (DNAPL) contamination in the shallow aquifer.

Burlington recommends that the well location be moved to approximately 80 feet southwest of the initially proposed location. At this new location, the well would be approximately 20 feet west of the pump house, and generally downgradient of the oil/water separator. In addition, this location is approximately equidistant from the nearby shallow-aquifer monitoring wells CP-104A, CP-107, CP-112, and CP-116, and will result in more nearly uniform areal coverage by shallow wells in this vicinity. A contour map of the water table (from Sweet-Edwards/EMCON, 1989) shows the water table sloping approximately from northeast to southwest in this area.

A contour map of the upper surface of the silty sand layer (from USEPA, 1992) shows a high along the western side of the leased property, near the new well location. The map also shows the surface sloping eastward in this area. Subsurface DNAPL is not expected to accumulate on such a slope, but instead would tend to concentrate in topographic depressions in the surface of the silty sand layer. Therefore, Burlington proposes that the design of well CP-120 be modified to that of a shallow monitoring well without a DNAPL collection sump. The proposed new design is that shown in Figure C-2 of the RFI Work Plan.

The new location is believed to be more appropriate for monitoring the downgradient migration of any dissolved contaminants that may have been released from the area of the oil/water separator. The newly completed shallow-aquifer monitoring well CP-115A, with a DNAPL-

collection sump, will be used to monitor for NAPL that may be migrating eastward from the area of the oil/water separator. Burlington is confident that these changes can be made without compromising the overall goals of the RFI.

REFERENCES

- Burlington Environmental Inc. April 1992. RCRA Facility Investigation Work Plan, Burlington Environmental Inc. Pier 91 Facility, Seattle, Washington. Prepared by Burlington Environmental Inc.
- Sweet-Edwards/EMCON. 1989. Hydrogeologic Investigation, Pier 91 Facility, Chemical Processors, Inc., Prepared for Chemical Processors, Inc., Seattle, Washington.
- U.S. Environmental Protection Agency. July 9, 1992. Letter from Michael F. Gearheard to John Stiller, Burlington Environmental Inc.